UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,594	03/30/2001	Klaus Wehrend	112740-117	4492

29177 7590 07/12/2005

BELL, BOYD & LLOYD, LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135

EXAMINER	
CHANG, RICHARD	
ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/806,594	WEHREND ET AL.	
	Examiner	Art Unit	
	Richard Chang	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/30/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments and amendments with respect to claims 7-12 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 6,404,765 ("Bernstein et al.") in view of US patent No. 6,041,054 ("Westberg") and US patent No. 6,229,821 ("Bharucha et al.").

Regarding claim 7, Bernstein et al. teach a method and system for connecting exchanges (110-118, access devices) via a packet-oriented communication network (180), wherein data transmission involves data packets (DS-X traffic packets, See Fig. 6B) subdivided into substructure elements (within ATM cell), and the connecting exchanges (110-118, access devices) are connected to the packet-oriented communication network (180) via a respective conversion device (100, access MUX device) (See Fig. 1), the method comprising of:

transmitting, via a transmitting one of the connecting exchanges (110, access device) data (DS-X traffic packets) to be transmitted as substructure elements (within

ATM cells) to an associated transmitting conversion device (100, access MUX device) (See Fig. 1, Col. 5, lines 50-55),

inserting, via the transmitting conversion device (210, ATM conversion circuit), the substructure elements (within ATM cells) into data packets unchanged (See Fig. 2, Col. 6, lines 3-8),

extracting, via a receiving conversion device (210, ATM conversion circuit) associated with a receiving one of the connecting exchanges (110, access device), the substructure elements from the received data packets (within ATM cells) (See Fig. 2, Col. 6, lines 1-2), and

forwarding, via the receiving conversion device 210, ATM conversion circuit), the extracted substructure elements to the receiving one of the connecting exchanges (110, access device)unchanged (See Fig. 1, Col. 5, lines 50-55).

Bernstein et al. teach substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"providing that each of the substructure elements (205, AAL2 mini packets) include both a cell header and a useful data area, and

"the substructure elements (Mini packet) may be inserted into the data packets in an arbitrary order".

Westberg teaches a method and apparatus for ATM system wherein the serial DS-X traffic packets may be further subdivided into the AAL2 substructure elements inside the ATM cells for

providing that each of the substructure elements (205, AAL2 mini packets within ATM cells) include both a cell header (302) and a useful data area (302, payload) (See Fig. 2 and Fig. 3, Col. 1, lines 30-56), and

the substructure elements (205, AAL2 mini packets) may be inserted into the data packets (210, ATM cell) in an arbitrary order (See Fig. 2, Col. 1, lines 30-42).

A person of ordinary skill in the art would have been motivated to employ Westberg in Bernstein et al. in order to obtain a method for connecting access devices via a packet-oriented communication network wherein data traffic packets subdivided into AAL2 mini packets within ATM cells via a respective conversion device and to take advantage of subdividing data traffic packets into the AAL2 mini packets within the ATM cells in arbitrary order wherein each AAL2 mini packet within ATM cell includes both a cell header and a payload in claim 7.

The suggestion/motivation to do so would have been to subdivide data traffic packets into the AAL2 mini packets within the ATM cells in arbitrary order wherein each AAL2 mini packet within ATM cell includes both a cell header and a payload, as suggested by Westberg in Col. 1, lines 30-56. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Westberg with the Bernstein et al. to obtain the inventions specified in claim 7.

Regarding claim 8, as discussed above, Westberg further teaches that the data packets are structured as Internet Protocol data packets (102 as IP over ATM) (See Fig. 1, Col. 2, lines 43-50).

A person of ordinary skill in the art would have been motivated to employ Westberg in Bernstein et al. in order to obtain a method for connecting access devices via a packet-oriented communication network wherein data traffic packets subdivided into AAL2 mini packets within ATM cells via a respective conversion device and to take advantage of structuring the data packets are as Internet Protocol data packets as IP over ATM in claim 8.

The suggestion/motivation to do so would have been to structure the data packets are as Internet Protocol data packets as IP over ATM, as suggested by Westberg in Col. 2, lines 43-50. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Westberg with the Bernstein et al. to obtain the inventions specified in claim 8.

Regarding claim 9, as discussed above, Westberg further teaches that

storing, via a respective cell header (302) of a substructure element (301), a channel identifier (304, CID) for denoting assignment of the substructure elements (301 AAL2 mini packet) to a transmission destination, and

storing, via the respective cell header (302), an item of length information (305, Length) for indicating a number of useful data segments transmitted in the substructure element (301 AAL2 mini packet) (See Fig. 3, Col. 1, Lines 43-55).

A person of ordinary skill in the art would have been motivated to employ Westberg in Bernstein et al. in order to obtain a method for connecting access devices via a packet-oriented communication network wherein data traffic packets subdivided into AAL2 mini packets within ATM cells via a respective conversion device and to take

advantage of storing a channel identifier and length information in the header of the AAL2 mini packet in claim 9.

The suggestion/motivation to do so would have been to store a channel identifier and length information in header of the AAL2 mini packet, as suggested by Westberg in Col. 1, Lines 43-55. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Westberg with the Bernstein et al. to obtain the inventions specified in claim 9.

Regarding claim 10, as discussed above, this claim have limitation that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

Regarding claim 11-12, as discussed above, Bernstein et al. and Westberg teach substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"the substructure elements are arranged in a useful data area of a data packet such that a substructure element starts in a segment defined as first useful data segment of the data packet", and

"defining a pointer, in a segment defined as first useful data segment of an Internet Protocol data packet, which is used to denote a start address of a first substructure element situated in a useful data area of the Internet Protocol data packet".

Bharucha et al. teach an advanced method for utilizing the AAL2 mini packets inside the ATM cell/frame (See Fig. 2) for

the substructure elements (36, 37 ... AAL2 mini packets) are arranged in a useful data area (ATM payload data area) of a data packet (30 ATM cell) such that a substructure element (AAL2 mini packet) starts in a segment (36) defined as first useful data segment (1st AAL2 mini packet) of the data packet (30) (See Fig. 3 and Fig. 4, Col. 2, lines 28-43), and

defining a pointer (34 MSP), in a segment (31) defined as first useful data segment of an Internet Protocol data packet, which is used to denote a start address of a first substructure element (AAL2 mini packet) situated in a useful data area of the Internet Protocol data packet as IP over ATM (See Fig. 4, Col. 2, lines 33-43).

A person of ordinary skill in the art would have been motivated to employ Bharucha et al. in Westberg and Bernstein et al. in order to obtain a method for connecting access devices via a packet-oriented communication network wherein data traffic packets subdivided into AAL2 mini packets within ATM cells via a respective conversion device and to take advantage of arranging the 1st AAL2 mini packets in a useful ATM payload data area and further defining a MSP pointer to denote a start address of a first mini packet situated in a useful data area of the Internet Protocol data packet as IP over ATM in claims 11-12.

The suggestion/motivation to do so would have been to arrange the 1st AAL2 mini packets in a useful ATM payload data area and to further define a MSP pointer to denote a start address of a first mini packet situated in a useful data area of the Internet Protocol data packet as IP over ATM, as suggested by Bharucha et al. in Col. 2, lines 28-43. At the time the invention was made, therefore, it would have been obvious to

one of ordinary skill in the art to which the invention pertains to combine Bharucha et al. with Westberg and Bernstein et al. to obtain the inventions specified in claims 11-12.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard Chang
Patent Examiner
Art Unit 2663

RICKY NGO
PRIMARY EXAMINER
7/8/05